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(54) ELECTRONIC DEVICE CASE WITH **ANTENNA**

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See application file for complete search history.

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ABSTRACT

A case for a mobile electronic device is provided. The case includes a shell, a case antenna, a transmission line, and a near-field coupling device. The shell encases at least a portion of the mobile electronic device. The case antenna is attached to the shell. The transmission line is also attached to the shell and electrically interconnects to the case antenna. The nearfield coupling device has a feed port electrically interconnected to the transmission line and is configured to near-field couple to a native antenna of the mobile electronic device to capture an electromagnetic signal generated by the native antenna of the mobile electronic device. The near-field coupling device is also configured to conduct the captured electromagnetic signal from the feed port of the near-field coupling device to the case antenna through the transmission line.

19 Claims, 16 Drawing Sheets

